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The

ACADEMY NEWSLETTER

CALIFORNIA
ACADEMY OF SCIENCES

April 1992



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Members' Meetings

"How Far Does Escargot? or The Paleoecology of Marine Invertebrates"

April 22, 2 & 7:30 pm April 23, 7:30 pm



Punta San Juanico,
Baja California

Dr. Michael Russel

Shallow water marine invertebrates of California have an unusually complete fossil record. More than 70% of the snail and clam species found living along the coast today are found in the fossils of the Pleistocene. This period, starting 1.7 million years ago, was marked by dramatic fluctuations in both sea level and climate due to multiple glacial episodes.

In April's Members' Meetings, Dr. Michael Russel of the Academy's Invertebrate Zoology and Geology Department will discuss the fascinating evolutionary and ecological processes effecting distribution of marine invertebrates. He

will examine the astronomical theory of the causes of the ice ages and the effects of glaciation on sea level and coastal geologic formations. These glacial events, associated with changes in climate, also effected the changing biogeographic patterns of marine snails along our coast. Using slides of fossiliferous marine terrace deposits of California, Dr. Russel will illustrate field sites where he has conducted paleontological work on this subject.

Next month's meetings will be held on May 13 and 14 and will feature Dr. Gary Williams.

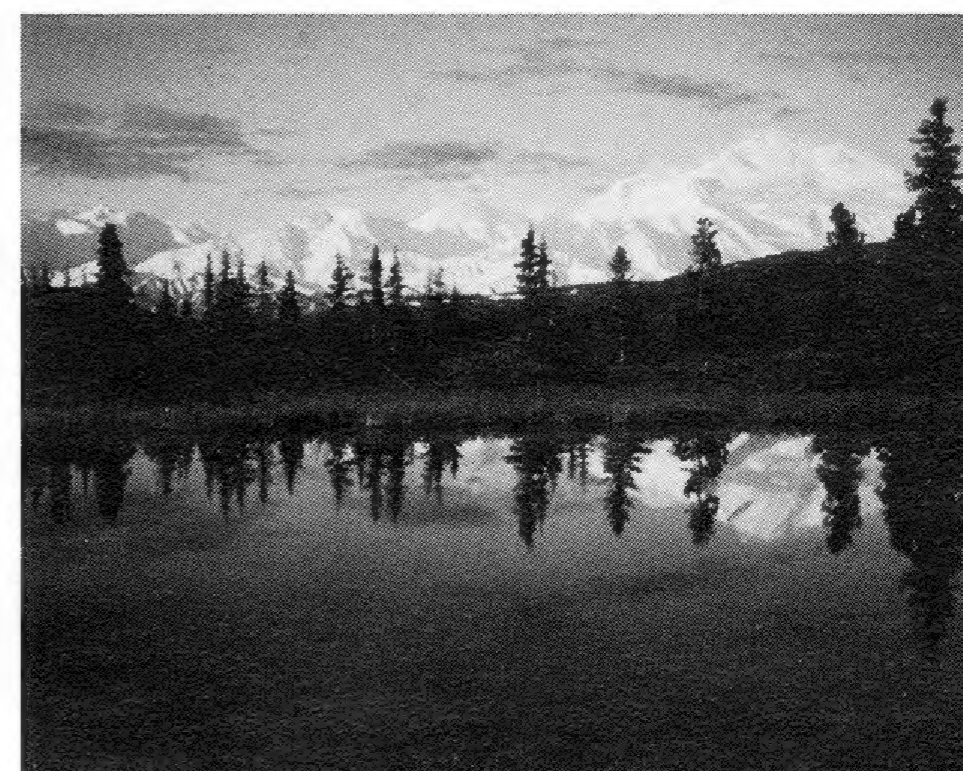
Young Audiences

Young Audiences presents a wonderful program for children one Sunday each month in the Academy's Morrison Auditorium. This month on April 26th, Eliot Fintushel uses mime, clown theatre and a series of unique layered masks to entertain young folks. A

two-time winner of the NEA solo performer award, Eliot explores body language on stage and off with plenty of audience participation. This program is funded by the McKesson Foundation and Grants for the Arts.

Academy Travel

Alaska Overland Adventure with Dr. Dave Kavanaugh



Dr. David Kavanaugh

Denali National Park

For any of you who have ever traveled with Dave on an Alaskan cruise, this trip is a natural progression. A cruise gives you a taste of this magnificent state but leaves you wanting more. For anyone who has *never* been to Alaska, this trip is your opportunity to experience its incredible diversity. Our Alaska Overland Adventure is an in-depth study that ranges north of the Arctic Circle to Kotzebue, west to the Alaska Peninsula's Katmai National Park, and southeast to Glacier Bay. We encompass all this vast state's major habitats, including visits to: Brooks Lodge, with the largest population of brown bears in Alaska and the "Valley of 10,000 Smokes;" five nights at Camp Denali amid the world's most breathtaking, rugged wilderness where moose, wolves, brown bear and Dall sheep abound; and Glacier Bay where whales, harbor seals and birds proliferate against a backdrop of mountains and glaciers.

The trip runs July 24-August 8 and costs \$4,875 per person plus \$698 round trip airfare from San Francisco. Includes most meals, all Alaska transportation and services of a courier in addition to tour lecturer Dr. Dave Kavanaugh. Call Joanie Russell or Nancy Fuller at (415) 750-7222 for more information. Only ten spaces left!

Special Program

"Science and the Public Trust Doctrine: Biodiversity and the Endangered Species Act"

Thursday, May 7th
Sacramento Convention Center

The California Academy of Sciences, State Lands Commission, San Francisco Estuary Project, East Bay Regional Parks District, Regional Parks Foundation and the National Marine Fisheries Service announce this exciting scientific symposium. The focus of this all-day symposium is to improve communication between the science and resource management communities. When is there adequate scientific certainty for policy implementation? How can we avoid the manipulation of science for policy or political purposes? This program will examine some of these difficult questions.

The keynote speaker will be Dr. Luna Leopold. Other speakers include the Academy's Dr. Terry Gosliner; Boyd Gibbons; Hon. John Racanelli and Hap Dunning; the process and limitations of the Endangered Species Act will be examined; and case histories regarding salmon, smelt and endangered plants of California will be described. The day's program will conclude with a discussion entitled "Science to Policy," and a summary by Charles Warren.

Make checks payable to "State Lands Commission" and send it and the coupon to: State Lands Commission, 1807 13th Street, Sacramento, CA 95814. Call (916) 322-6877 for more information.

Ticket Order Form

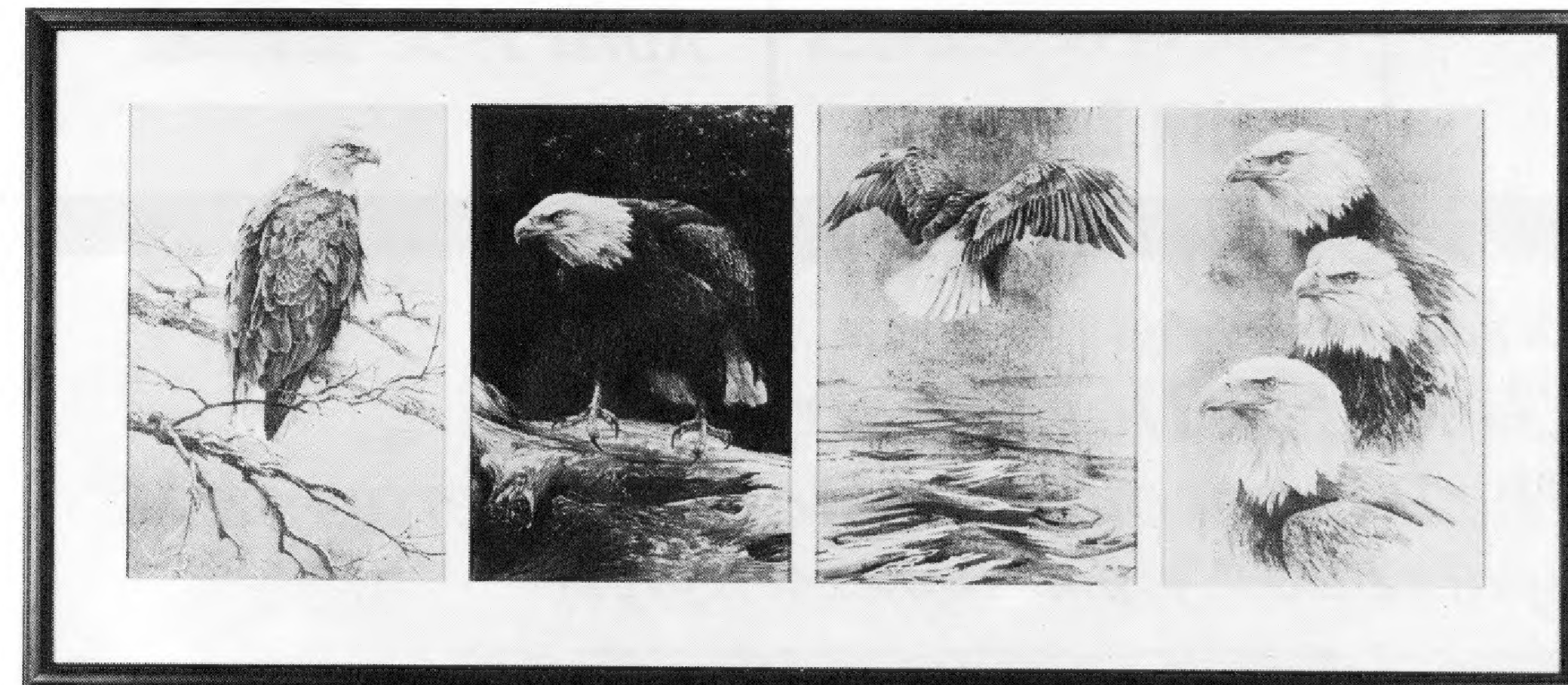
"Science and the Public Trust,"
May 7
Sacramento Convention Center

Name _____
Address _____
City _____ Zip _____

____ \$15 includes box lunch
____ \$10 walk-in
____ Total amount

Special Program

The California Academy of Sciences and the Bay Chapter, Sierra Club present: "Crossing Alaska"



By Robert Bateman

4 Bald Eagle Lithographs

"Crossing Alaska," a special slide-illustrated lecture by Keith Nyitray will be presented at the Academy's Morrison Auditorium on Tuesday May 12th at 7:30, and at Wheeler Auditorium, UC Berkeley, on Wednesday, May 13th at 8:00.

In January 1990, Nyitray, an Alaska resident, became the first person to traverse the entire length of the Brooks Range from Fort McPherson, North West Territory, Canada, to Kotzebue on the Bering Sea coast of Alaska. The Brooks Range encompasses eleven distinct mountain regions and is probably the finest remaining true

wilderness area in the world.

It took Keith 304 days for the 1500-mile trip by foot, dog-sled, and canoe. No tent, radio, or stove, and no arranged air-drops were used on the trip. His only contact with the modern world came as he passed through four native villages along the route.

Tickets are \$5 and orders should be sent to the sponsoring organization. Seats at Wheeler Auditorium are reserved. Please use the forms below to order your tickets.

Ticket Order Form

"Crossing Alaska"
Tuesday, May 12, 7:30 pm
Morrison Auditorium

____ \$5 (seats not reserved)

Name _____
Address _____
City _____ Zip _____
Daytime phone _____
Visa or Mastercard# _____
Exp. Date _____
Signature _____

Please send your check payable to the California Academy of Sciences and a self-addressed, stamped envelope to:

The Special Programs Office
California Academy of Sciences
Golden Gate Park
San Francisco, CA 94118

Phone (415) 750-7128

No Refunds/No Exchanges

Ticket Order Form

"Crossing Alaska"

Wed., May 13, 8:00 pm
Wheeler Auditorium, UC Berkeley

____ \$5 (seats reserved)

Name _____
Address _____
City _____ Zip _____
Daytime phone _____
Row Preferred (A-T) _____

Please make checks payable to "Bay Chapter, Sierra Club" and send a self-addressed, stamped envelope to:

Events, Bay Chapter,
Sierra Club
5237 College Ave.
Oakland, CA 94618

Phone (510) 653-6127

No Refunds/No Exchanges

Adult Education

Enjoy the diverse offerings of the Academy's Adult Education program. Below is a listing of some courses that still have openings.

Vegetation of Southern Africa

The southern African flora is unique and one of the most diverse and spectacular in the world. Several major vegetation types converge on the southern African subcontinent, from the Cape Floristic Region to the Namib Desert, the Kalahari and Highveld, the Great Karoo, the subtropical woodlands of Natal, to the tropical swamps of the Okavango. The tiny Camp Peninsula behind Cape Town has more species of indigenous plants than are present in all of Great Britain! A 2-hour field trip in the Strybing Arboretum will complement the evening lectures.

April 21 and 28, 7-9 pm

Field trip: May 3

Cost: \$45 mem./\$55 non-mem.

Drawing Pepperwood

Join us as we explore and draw the flora and landscape of Pepperwood Natural Preserve in Sonoma County. In the midst of breathtaking vistas, we'll enjoy the springtime flowers and draw their portraits at the height of the season. An introductory identifying walk will be followed by an intensive session in a quiet valley as we use a stippled ink technique that results in successful drawings even for beginners.

April 26, 10am-4 pm

Cost: \$40 mem./\$50 non-mem.

Birds of the Sierra and Cascades

Get ready for summer birding with this three-part introductory class to the birds of the California mountains. For the short Sierra and Cascade summer, our mountains teem with bird life. This is your chance not only to learn about bird identification, but also about their habitat needs, nesting habits and where you'll find them. Lectures will be reinforced with slides and study skins.

May 5-19, 7-9 pm

Cost: \$40 mem./\$50 non-mem.

City Arts & Lectures, Inc. and The California Academy of Sciences present:

"Conversations at the Herbst Theatre"

There are two "conversations" remaining in this year's highly successful Herbst lecture series. Both of these promise to be as stimulating and entertaining as the earlier programs of the series. To order tickets for each of these programs, please call The City Box Office at (415) 392-4400. Tickets are \$14 for orchestra and \$12 for balcony.

David Quammen

In conversation with Jerry Kay
Wednesday, April 8

For a journalist to walk the tight-rope between fiction and fact, conjecture and science, a high degree of talent, curiosity and humility is required. David Quammen possesses both, and his acclaim is honestly earned. Educated, as described in his own words, "by Jesuit priests and Southern novelists," along with professors at Yale and Oxford, Quammen has been writing a natural science column for *Outside* magazine since 1981. His quizical, often humorous, musings on the meaning and implications of science in our culture have reached readers in magazines from *Esquire* to *Rolling Stone* to *Harpers*.

James Gleick

In conversation with
Lila Peterson-Johnson
Thursday, April 16

Science writer James Gleick was a science reporter for *The New York Times* when he wrote his first book, *Chaos: Making A New Science*, published in 1987. It explores the emerging of disorder in nature and the search for universal patterns of complexity. *Chaos* has rapidly evolved into its own scientific branch, impacting subjects as disparate as ecology and economics, or medicine and meteorology. The book became a smashed bestseller and has spawned a computer software program.

Academy Ball FLORABUNDA



Delight your "scent-ses" at *Florabunda*. This seventh annual black-tie event will be held throughout the Academy on Thursday, April 9. Join us for a delightful evening of dining, dancing and entertainment. Tickets start at \$200 per person. Proceeds from *Florabunda* will help support environmental programs for children. This memorable evening starts at 6:30 pm and lasts until midnight. To reserve your tickets for this special evening and for more information, please call Brenda Zimmerman at (415) 433-0754.

Free First Wednesday April 1

The Free First Wednesday Evening on April 1st celebrates Chinese Heritage with an evening of family fun. All events (except food) are free.

5-8 pm — Enjoy a performance of traditional and classical folk songs of China and traditional dance by Wilma Pang and the Chinese Instrumental Ensemble while you dine on Chinese food. AFRICAN HALL

5-8 pm — Join us for a hands-on Chinese art activity. HOHFELD HALL

5-8 pm — Visit the Biodiversity Resource Center. OCEANS HALL

6-6:30 pm — Join the fun of storytelling, games and a short movie as the Academy Science in Action Interns perform "In Celebration of Wetlands." HOHFELD HALL

6-8 pm — Come to the Discovery Room for exciting interactive exhibits.

6:30 pm — Concert Under the Stars. MORRISON PLANETARIUM

7:00 pm — Informal presentation on scorpions by Academy scientist Vince Lee. HOHFELD HALL

These programs are funded by a generous grant from the Bernard Osher Foundation.

Lecture and Reception
**"The World
 Through the Eyes of
 Robert Bateman"**
 April 15



"Ceremonial Pose – Red-Crowned Crane"

Robert Bateman, the renowned Canadian artist featured in the newest exhibit at the Academy, will be discussing his recent adventures in Japan, China and British Columbia in a special lecture presentation and opening celebration on April 15th.

Mr. Bateman will be signing books at the Academy Store from 4-5 pm. At 6 pm there will be a formal reception in his honor in Oceans Hall. This gifted artist will present a special program at 7:30 in Morrison Auditorium. He will use slides to describe his exploration of Giant panda habitat in China, and other adventures in fascinating parts of the world. Signed books will be available at the Academy Store before and after the lecture. Mr. Bateman extends his gratitude to the exhibit's corporate financial sponsors, Mill Pond Press, Inc., and The Chubb Group of Insurance Companies, with special appreciation to the owners of his original paintings.

By Robert Bateman

Traditional Arts



Bonnie Kamin

The Barbary Coast Cloggers

Explore the cultures of the world with the Academy's Traditional Arts Program on Saturdays at 1 pm. These programs are held in Wattis Hall of Human Cultures or Morrison Auditorium and are made possible through the Paul L. and Phyllis Wattis Foundation.

April 4 — The Barbary Coast Cloggers perform a uniquely American form of clog dance called precision clogging. The style is characterized by energetic and fast footwork and uniform movements of the dancers.

April 11 — Christine Wirawan and members of the Bay Area Indonesian community model traditional costumes that illustrate regional differences among the Indonesian islands. The program includes wedding garments worn by the bride and groom in West Sumatra, and clothing from Timor, Sulawesi and Sumba.

April 18 — Known as the Druzhba Duo, Illy Tsarfin and Leo Cavanaugh play Russian folk melodies on the guitar and four-stringed *domra*, or Russian mandolin.

April 25 — No program.

Lecture Series
**"Exploring the
 Universe"**

April 7, 7:30 pm



Dr. Christopher Chyba

Fossil evidence makes it clear that terrestrial life existed within a billion years of Earth's formation. But we know from lunar exploration that the inner solar system was subject to an intense bombardment of asteroids and comets throughout its first billion years. This means that the origin of life took place not in a serene peaceful environment, but rather in a violent, impact-ridden one. At the same time, comets are rich in organic molecules the kinds of molecules needed for the origin of life. Terrestrial life was born despite, and perhaps because of, the violent environment of early Earth.

In "Cometary Impacts and the Origins of Life," Dr. Christopher Chyba, National Research Council Associate at NASA Ames Research Center, will tie together key results from work on Earth's earliest fossil record, the Apollo exploration of the Moon, recent missions to Halley's comet, and new computer simulations of giant asteroid and comet impacts to describe where our understanding of the origin of life now stands.

The last program in the series will be on May 19 "X-ray Visions of the Universe," Dr. Lynn Cominsky, Sonoma State University.

All programs begin at 7:30 pm in the Planetarium. Tickets are \$2 each. Seats will also be available on a standby basis. For ticket information, call (415) 750-7129.

Lecture
**"The Future of
 the West"**

May 27, 7:30 pm



By Robert Bateman

"Mossy Branches – Spotted Owl"

The modern American West has reached an historic watershed every bit as epochal as the closing of the frontier a century ago. The people of the region are calling for a new approach that will protect the forests, rivers, and wildlife, yet respects its traditional Indian, ranching, and farming communities.

Professor Charles Wilkinson will celebrate the West in this special program. Professor Wilkinson, an award-winning writer and teacher will read from *The Eagle Bird Mapping a New West*, his recently published book of essays. Renowned author Wallace Stegner has called *The Eagle Bird* "the best handbook I know for anyone who wants to know the history of the West and its improbable future."

The lecture will be followed by a booksigning, and the Academy Store will be open. Tickets are \$5 members/\$7 non-members. Please use the coupon on this page to order your tickets.

Lecture

*The California Academy of
 Sciences and the deYoung
 Museum Docent Council
 present:*

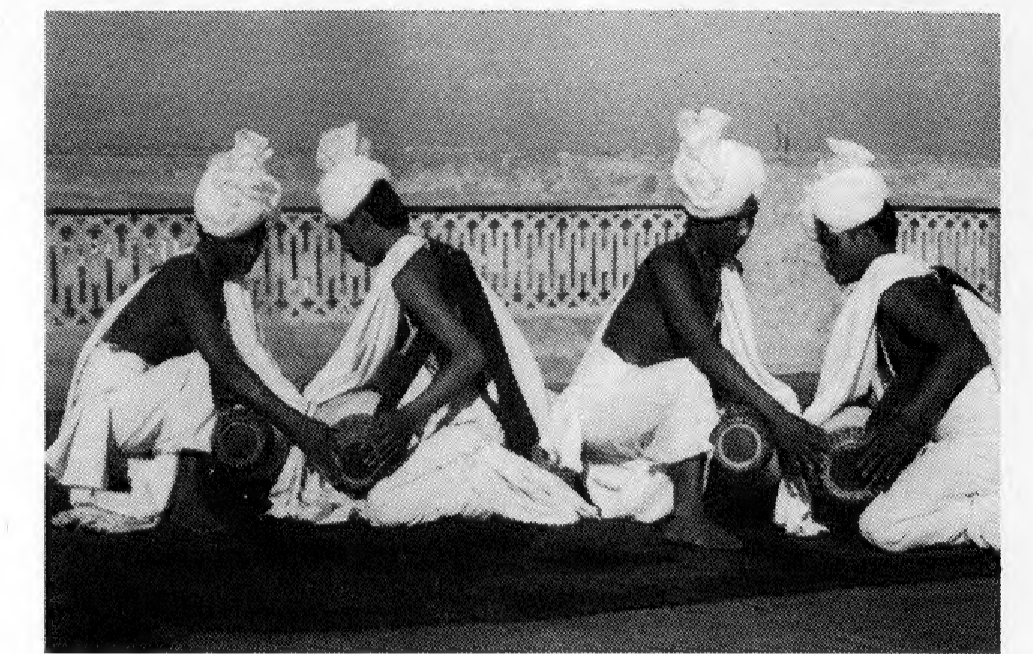
**"The Maya of Central
 America:
 Glyphs, Creation Stories
 and Cosmology"**

Wednesday, April 29, 7:30 pm

Dr. David Freidel has been a Maya archaeologist for twenty years. In this special lecture he will explain the story of the creation of the world as given in glyphic texts found in temples and carved in stone stelae of the 7th and 8th centuries A.D. Those texts and images, commissioned by great kings and written by royal scribes, bear remarkable resemblances to the practices of village shamans in modern Maya communities. Dr. Freidel will show slides of ancient art as well as modern village rituals to illustrate the parallels he sees between ancient and modern Maya cosmology and beliefs.

His book, co-authored with Linda Schele, *A Forest of Kings, the Untold Story of the Ancient Maya* will be available at the Academy Store before and after the lecture and there will be a booksigning following the event. Tickets are \$5 for members/\$7 for non-members. Please use the coupon below to order your tickets. Call 750-7128 for more information.

**Ceremonial Arts
 Program**



During the month of April, visiting artisans from the state of Manipur, in the remote Himalayan region of India, will demonstrate ceremonial crafts from 10:30 am to 4:00 pm in Cowell Hall, seven days a week. Relatively unknown outside of India, Manipuri folk arts still play a vital role in the ritual and everyday life of the people.

Presentations will include weaving on a simple backstrap loom to make fabric for wedding dresses, temple dresses and prayer shawls; embroidery on special garments; fabricating a *pung* drum and a *bamsi* flute, both played on spiritual occasions; cane and bamboo *phiruk* baskets carried in the wedding procession; woven papyrus reed mats called *kouna phak*; and the shaping of different styles of ceremonial turbans, or *koyet yetpa*.

**Earth Day at the
 Academy April 25th**



The Academy celebrates Earth Day on April 25th with programs at the Science in Action stage and the Biodiversity Center. Video programs and resource packets will focus on biodiversity and environmental issues.

Ticket Order Form

"Robert Bateman" April 15, 7:30 pm

Lecture only: ☐ \$5 member ☐ \$7 non-member
 Reception & Lecture: ☐ \$30 member ☐ \$35 non-member

Name
 Address
 City Zip
 Daytime phone
 Visa or Mastercard#
 Exp. Date
 Signature

Please send your check payable to the California Academy of Sciences and a self-addressed, stamped envelope to:
 The Development Office
 California Academy of Sciences,
 Golden Gate Park
 San Francisco, CA 94118
 Phone (415) 750-7128
 No Refunds/No Exchanges

Ticket Order Form

☐ April 29 "The Maya of Central America"
☐ May 27 "The Future of the West"
☐ \$5 Members ☐ \$7 Non-members

Name
 Address
 City Zip
 Daytime phone
 Visa or Mastercard#
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 The Special Programs Office
 California Academy of Sciences
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*Time Dated Material
Please Expedite*

April 1992

Open daily from 10 am to 5 pm

(415) 221-5100

*Golden Gate Park
San Francisco, California 94118-4599*



*Non-Profit Organization
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San Francisco*

Calendar of Events

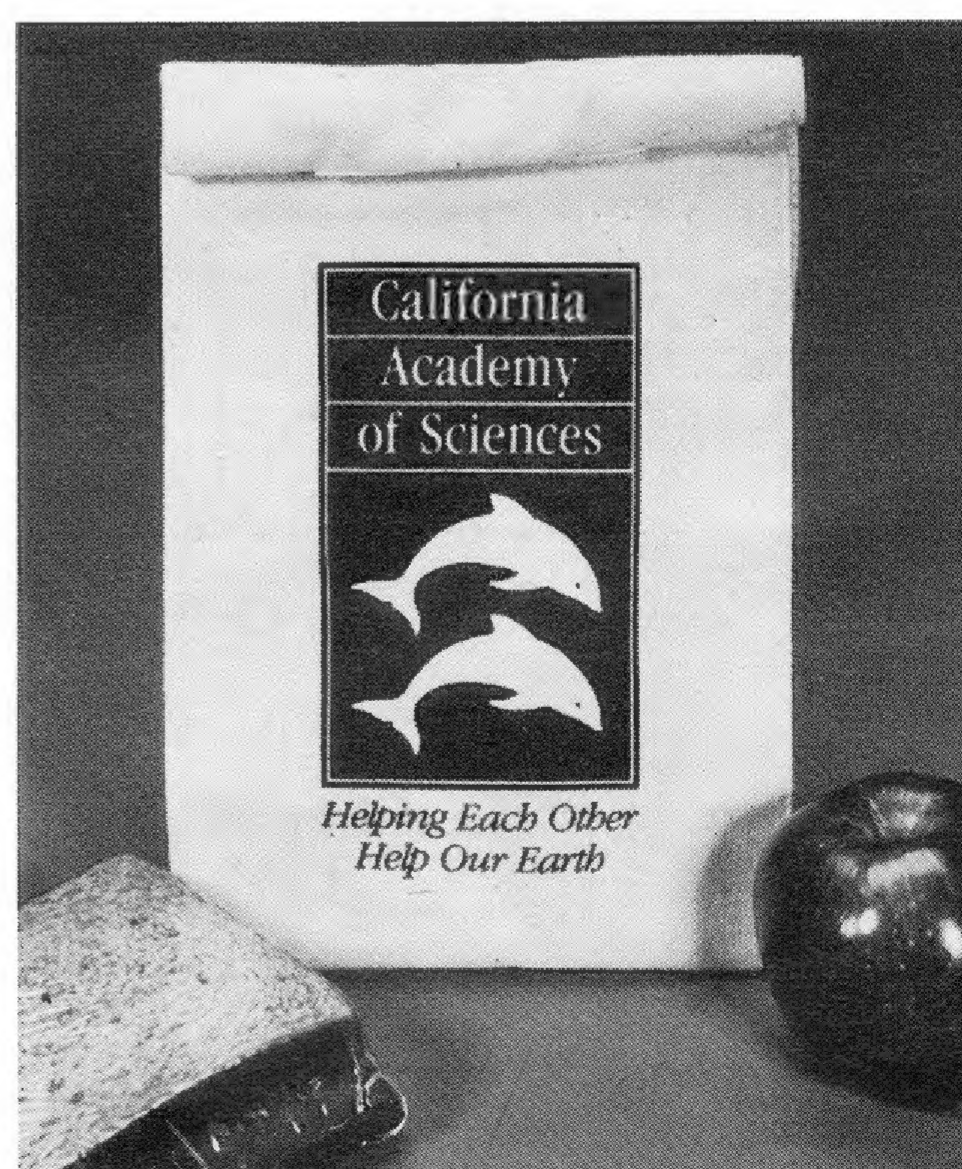
April

- 1 Free First Wednesday
- 4 Traditional Arts, 1 pm
- 7 "Universe" series, 7:30 pm
- 8 "Conversations" with David Quammen at the Herbst Theatre, 8 pm
- 9 "Florabunda" the Academy Ball, 6:30 pm to midnight
- 11 Traditional Arts, 1 pm
- 15 Lecture, "The World of Robert Bateman," 7:30 pm
- 16 "Conversations" with James Gleick at the Herbst Theatre, 8 pm
- 18 Traditional Arts, 1 pm
- 22 Members' Meetings, 2 & 7:30 pm
- 23 Members' Meetings, 7:30 pm
- 25 Earth Day at the Academy
- 26 Young Audiences, 1 pm
- 29 Lecture, "Maya Cosmos," 7:30 pm

May

- 6 Free First Wednesday
- 7 Symposium, "Science and the Public Trust," Sacramento Convention Center
- 12 Lecture, "Crossing Alaska," 7:30 pm at Morrison Auditorium, San Francisco
- 13 Lecture, "Crossing Alaska," 8:00 pm at Wheeler Auditorium, Berkeley
- 19 "Universe" series, 7:30 pm
- 27 Lecture, "The Future of the West," 7:30 pm

Academy Store



CAS, Charlotte Fiorito

*Celebrate **Earth Day** every day at lunch time! We are introducing our environment-friendly lunch bag from the Academy Store. Great for school or local expeditions. Cost: only \$7.95. Available in three different colors.*